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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,970	12/29/2000	Tor Andreas Tveit	45060-00008	9079

7590 05/16/2005

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EXAMINER
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SHARON, AYAL I

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/751,970

Applicant(s)

TVEIT ET AL.

Examiner

Ayal I. Sharon

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-28,32-36 and 46-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-28,32-36, 46-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Introduction***

1. Claims 19-28, 32-36, and 46-57 of U.S. Application 09/751,970, originally filed on 12/29/2000 are presented for examination. Claims 19, 25 and 36 have been amended. Claims 46-57 are new. Claims 1-18, 29-31 and 37-45 have been cancelled.
2. In response to applicant's arguments regarding the Mitchell reference not teaching "highly skilled technical experts like the Help Desk of the claimed invention" (see pp.8-9 of the amendment filed 11/24/2005), 35 U.S.C 101 rejections have been applied to claims 19-28 and 32-36.
3. Applicant has amended claim 19 to include a limitation that was indicated as being allowable in the previous Office Action. New art has been applied to reject this limitation.
4. New objections and rejections have been applied to claims 24, 26, and 27. The indication of allowable subject matter has been withdrawn.
5. This Office Action is therefore Non-Final.

### ***Claim Objections***

6. Claim 24 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is

required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The limitations of dependent claim 24 have been amended into independent claim 19, thereby rendering claim 24 as redundant.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. **Claims 19-28 and 32-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are not restricted to the technological arts.**
9. The limitation of independent Claim 19, "a service Help Desk", is not limited to the technological arts because according to Applicants' arguments (See amendment filed 11/18/2004, p.9) the "Help Desk" consists of "highly skilled technical experts". All dependent claims inherit this defect.
10. The limitation of independent Claim 32, "a Help Desk" is not limited to the technological arts because according to Applicants' arguments (See amendment filed 11/18/2004, p.9) the "Help Desk" consists of "highly skilled technical experts". All dependent claims inherit this defect.
11. **Claims 46-57 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility.**

12. Independent claims 46 and 57 are inoperative because they omit the step of generating the recommendation measure of the inspected portion. All dependent claims inherit this defect.

***Claim Rejections - 35 USC § 112***

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. **Claims 46-57 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01.**

15. For independent claim 46, the omitted element is generating the recommendation measure that is received at the information system. Based on Applicants' arguments (See amendment filed 11/18/2004, p.9) and the other claims in the application, this appears to be performed by humans at a Help Desk. All dependent claims inherit this defect.

16. For independent claim 57, the omitted element is generating the recommendation measure that is received at the information system. Based on Applicants' arguments (See amendment filed 11/18/2004, p.9) and the other claims in the application, this appears to be performed by humans at a Help Desk.

***Claim Rejections - 35 USC § 102***

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

18. The prior art used for these rejections is as follows:

19. Mitchell et al., U.S. Patent 6,574,672. (Henceforth referred to as “**Mitchell**”).

20. Leslie, U.S. Patent 6,668,629. (Henceforth referred to as “**Leslie**”).

21. The claim rejections are hereby summarized for Applicant’s convenience. The detailed rejections follow.

**22. Claims 32-33 and 35-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Mitchell.**

23. In regards to Claim 32, Mitchell teaches the following limitations:

32. A computer program product comprising computer code means or software code portions to make a computer or a processor operate in Information System comprising one or more databases and a Help Desk to provide maintenance for an electrical power generation, transmission and distribution system and apparatus connected to said power system, wherein said computer or processor is made to carry out actions to provide maintenance for said power system including to:

receive a data input representing at least one maintenance report,  
(See Mitchell, especially: col.4, line 17 – col.5, line 12)

Examiner finds that the transferred report (col.5, lines 2-5) corresponds to a “maintenance report”.

match the data input to an apparatus connected to a Power System network with information stored in a database,  
(See Mitchell, especially: col.4, line 17 – col.5, line 12)

Examiner finds that that Mitchell’s “instructional database” corresponds to the claimed apparatus.

receive a second input documenting a maintenance repair action,  
(See Mitchell, especially: col.4, line 17 – col.5, line 12)

Examiner finds that the transferred report (col.5, lines 2-5) corresponds to a "maintenance report".

link the second documented repair action to the apparatus and network,  
store the documented repair action.  
(See Mitchell, especially: col.4, line 17 – col.5, line 12)

Examiner finds that the transferred report corresponds to a stored document repair action.

24. In regards to Claim 33, Mitchell teaches the following limitations:

33. A computer program product according to Claim 32, which comprises software means for carrying out a further action to:  
update status reports for the apparatus and network.  
(See Mitchell, especially: col.4, line 17 – col.5, line 12)

Examiner finds that the sending and receiving of data (col.5, lines 8-12) correspond to "update[d] status reports".

25. In regards to Claim 35, Mitchell teaches the following limitations:

35. A computer program product according to Claim 32, which comprises software means for carrying out a further action to:  
send a signal comprising details for work orders dependent on the documented repair action to a maintenance Service Provider company (3).  
(See Mitchell, especially: col.4, line 17 – col.5, line 12)

Examiner interprets that the user / repairman taught by Mitchell is a representative of a maintenance service provider company.

26. In regards to Claim 36, Mitchell teaches the following limitations:

36. The computer program code element of Claim 32, which comprises computer code means or software code portions including executable parts formed written as one or more object oriented programs and accessible and implementable over a network.  
(See Mitchell, especially: col.4, line 17 – col.5, line 12)

***Claim Rejections - 35 USC § 103***

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28. The prior art used for these rejections is as follows:

29. Fedirchuk et al., U.S. Patent 6,545,482. (Henceforth referred to as "**Fedirchuk**").

30. Mitchell et al., U.S. Patent 6,574,672. (Henceforth referred to as "**Mitchell**").

31. Leslie, U.S. Patent 6,668,629. (Henceforth referred to as "**Leslie**").

32. IEEE Standard 625-1990. "IEEE Recommended Practice to Improve Electrical Maintenance and Safety in the Cement Industry." © 1991. (Henceforth referred to as "**IEEE Standard 625-1990**").

33. The claim rejections are hereby summarized for Applicant's convenience. The detailed rejections follow.

**34. Claims 19-23, 25, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fedirchuk in view of Mitchell, and further in view of IEEE 625-1990.**

35. In regards to Claim 19,

19. A power system information system to provide maintenance for an electrical power generation, transmission and distribution system and apparatus connected to said power system, said Information System comprising one or more databases, said information system comprising:

Fedirchuk teaches the following limitations:

a service Help Desk,  
(Fedirchuk, especially: col.2, lines 6-7)



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Fedirchuk teaches a "central station arranged for communication to and from each of the [monitoring] units over a communications medium".

communication means at the Help Desk to receive a inspection report comprising a graphic image,  
(Fedirchuk, especially: col.2, lines 6-7 and col.3, lines 5-11)

Fedirchuk teaches a "central station arranged for communication to and from each of the [monitoring] units over a communications medium".

Fedirchuk also teaches that "The captured data can be obtained from multiple recording locations and is automatically time-synchronized so that an overall coordinated snapshot of the power system dynamics is achieved. The wide-area capture is achieved through standard Internet, Intranet, and/or switched telephone network communication links."

Examiner interprets that the "coordinated snapshot" corresponds to the claimed "received graphic image".

display means at the Help desk to examine at least one of the report and the graphic image,  
(Fedirchuk, especially: col.2, lines 6-7 and col.3, lines 5-11)

Examiner interprets that display means are necessary to view a "coordinated snapshot" and therefore are inherent.

computer and display means to compare at least one of the graphic image and the inspection report with retrieved information, and.  
(Fedirchuk, especially: col.2, lines 6-7 and col.3, lines 5-11)

Examiner interprets that computer-file storage and retrieval capabilities, and a display, constitute "computer and display means to compare the graphic image ... with retrieved information. The ability to store and retrieve files is inherent to computers, because otherwise they would not work. The display means is also inherent, in order to show the cited "coordinated snapshot".

Fedirchuk, on the other hand, while teaching the use of stationary inspection means that makes a graphic image for an inspection report, does not expressly teach the following limitations:

mobile inspection means to make a graphic image for an inspection report,

mobile terminal, computer and display means to retrieve information from the one or more databases,

Mitchell does teach these limitations. Mitchell teaches (col.2, lines 37-48) that "The present invention provides a light, portable hands-off or hands free maintenance and repair system ... that is able to access a task-specific database."

Mitchell also teaches (col.4, lines 41-46) that "Finally, a communications link is provided by which the second computer can send data to and receive data from the wireless station while the user is working on the task within range of the wireless station, permitting audio and/or video teleconferencing between the user and the assistant or supervisor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Fedirchuk with those of Mitchell, because Mitchell teaches (col.2, lines 30-35) that "For existing systems in the repair and maintenance industry, or within industries in need of highly specialized on-site repair and maintenance personnel, there is presently no system, apparatus or method of providing multimedia data acquisition, interpretation, instruction and reporting."

Fedirchuk also does not expressly teach the following limitation:

ordering and scheduling means to issue purchase orders and work orders in respect of the plan to provide maintenance service at a later time.

IEEE 625-1990, on the other hand, expressly teaches the following:

The basic objective of any maintenance department is to avoid unexpected production outages due to equipment breakdowns. The usual cause of breakdowns is neglect or prolonged periods of operation without preventive maintenance.  
(IEEE 625-1990, section 5.1, "Maintenance Department Objectives")

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The most important part of any maintenance schedule is to display at all times what equipment is due for servicing. The maintenance schedule should be posted in front of all maintenance and production personnel at all times. In order to prepare a preventive maintenance schedule, a complete list of equipment, by departments, should be made available.

(IEEE 625-1990, section 5.2, "Maintenance Schedules")

The work order should give the date, priority, name of originator, cost, equipment to be worked on, and details of the work to be done. This work order is given to the maintenance planner and scheduler, and he gives it to the maintenance foreman. ... A sample work order is shown in Fig.1.

(IEEE 625-1990, section 5.3, "Maintenance Work Orders")

Good inspection and repair records are essential to any maintenance program. These records should indicate the nameplate data, purchase order data and number, and complete life history.

(IEEE 625-1990, section 5.4, "Maintenance Inspection and Repair Records")

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Fedirchuk and Mitchell with those of IEEE 625-1990, because Mitchell teaches (col.2, lines 30-35) that "For existing systems in the repair and maintenance industry, or within industries in need of highly specialized on-site repair and maintenance personnel, there is presently no system, apparatus or method of providing multimedia data acquisition, interpretation, instruction and reporting", while IEEE 625-1990 teaches "recommended best practices for improving electrical maintenance and safety in the cement industry..." (See IEEE 625-1990, p.1)

36. In regards to Claim 20, Fedirchuk teaches the following limitations:

20. A power system information system according to Claim 19, in which the inspection means comprises a web camera arranged to send pictures in a format such as TCP/IP suitable for transmission over a network such as the Internet.

(Fedirchuk, especially: col.2, lines 21-25)

Fedirchuk teaches the use of the internet. The use of TCP/IP is necessary for the use of the internet, and is therefore inherent.

37. In regards to Claim 21, Mitchell teaches the following limitations:

21. A power system information system according to Claim 19, which comprises a communication means enabling two-way voice communication between an inspector at a site and the Help Desk.  
(Mitchell, especially: col.4, lines 40-45)

38. In regards to Claim 22, Mitchell teaches the following limitations:

22. A power system information system according to Claim 19, which comprises storage means to document details of a decision to provide maintenance service.  
(Mitchell, especially: col.4, line 66 to col.5, line 12)

39. In regards to Claim 23, Mitchell teaches the following limitations:

23. A power system information system according to Claim 19, which comprises reporting and storage means to document details of a plan to provide maintenance service at a later time.  
(Mitchell, especially: col.4, line 66 to col.5, line 12)

40. In regards to Claim 25, Mitchell teaches the following limitations:

25. A power system information system according to Claim 19, which comprises software means to match a identified apparatus to details of the apparatus stored as files in a database of the system, the files comprising any of text, graphic, interactive multimedia, a sound recording.  
(Mitchell, especially: col.4, line 17 to col.5, line 12)

41. In regards to Claim 28, Fedirchuk teaches the following limitations:

28. A power system information system according to Claim 19, which comprises computer program and/or software means to model and or simulate an effect on the power system of any of the following: a disconnection; a partial disconnection; a reconfiguring or switching in of one part and switching out of another part; an increased load on an equipment; a reduced load on an equipment.  
(Fedirchuk, especially: col.1, lines 22-25)

**42. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fedirchuk in view of Mitchell, and further in view of IEEE 625-1990, and further in view of Official Notice.**

43. In regards to Claim 26, Fedirchuk teaches the following limitations:

26. A power system information system according to Claim 19, which comprises software means to log-on a registered or identified representative of the Utility to examine operations of the power system information database.

Official Notice is given that it was old and well known in the art at the time the invention was made that computer operating systems such as Windows 98, Windows NT and Unix included means for registered users to log on to the computer system.

It would have been obvious to one of ordinary skill in the art to modify the teachings of Fedirchuk with those of Official Notice, because it is not possible to construct a computer system without an operating system.

44. In regards to Claim 27, Fedirchuk teaches the following limitations:

27. A power system information system according to Claim 19, which comprises software means to log-on a registered or identified representative of the Utility to examine operations of the engineering Help Desk in real time.

Official Notice is given that it was old and well known in the art at the time the invention was made that computer operating systems such as Windows 98, Windows NT and Unix included means for registered users to log on to the computer system.

It would have been obvious to one of ordinary skill in the art to modify the teachings of Fedirchuk with those of Official Notice, because it is not possible to construct a computer system without an operating system.

**45. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchell in view of Leslie.**

46. In regards to Claim 34, Mitchell does not expressly teach the following limitations:

34. A computer program product according to Claim 32, which comprises software means for carrying out a further action to:  
send a signal in the form of a purchase order comprising details for replacement apparatus of spare parts to a parts supplier.

Leslie, on the other hand, does (see col.6, lines 5-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Mitchell with those of Leslie, because Leslie teaches (col.2, lines 10-13) that "... it would be desirable to provide a web-enabled controller so that operational data can be accessed, retrieved, and controlled through the internet."

***Response to Amendment***

47. The cancellation of claims 29-31 has rendered the objections to these claims moot.
48. The cancellation of claims 1-18, 29-31, and 37-45 has rendered the 35 U.S.C. 112 rejections of these claims moot.
49. The amendments to claims 20 and 36, which removes the term "such as", is sufficient to overcome the 35 U.S.C. 112, second paragraph rejections of these claims. The rejections have been withdrawn.
50. In regards to claims 19-23, 25, 28, and 32-37, Applicants argue (see pp.8-9 of the amendment filed 11/24/2005) that the "assistant/supervisor" in the Mitchell reference "does not contain highly skilled technical experts like the Help Desk of the claimed invention." However, this limitation is rejected in the instant Office Action under 35 U.S.C. §101.

***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ayal I. Sharon whose telephone number is (571) 272-3714. The examiner can normally be reached on Monday through Thursday, and the first Friday of a biweek, 8:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached at (571) 272-3716.

Any response to this office action should be faxed to (703) 872-9306, or mailed to:

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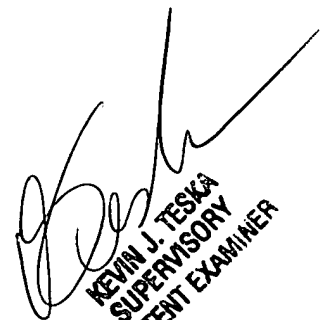
USPTO  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2100 Receptionist, whose telephone number is (571) 272-2100.

Ayal I. Sharon

Art Unit 2123

May 6, 2005

  
KEVIN J. TESKA  
SUPERVISORY  
PATENT EXAMINER